was subjected to ion-exchange chromatography using Dowex (Cl^-). The resulting solution was lyophilized to give the desired product 2.3 g; yield 81%; IR (KBr): 3394, 3045, 1624, 1587, 1510, 1442, 1312, 1155, 966 and 775 cm^{-1}; ^{1}H-NMR (300 MHz, DMSO-d_6): d 12.30 (s, 2H), 8.14 (d, J=7.18 Hz, 2H), 7.68 (s, 2H), 7.46 (t, J=7.92 Hz, 2H), 7.26 (d, J=7.89 Hz, 2H), 7.05–6.95 (m, 2H), 3.69 (t, J=7.56 Hz, 4H), 0.76–0.56 (m, 4H) and 0.30–0.10 (m, 6H); ^{13}C-NMR (75.46 MHz DMSO-d_6): d 146.8, 146.0, 145.1, 141.2, 127.3, 125.9, 57.7, 30.2, 27.7 and 25.0; MS (ESI) m/z: 341 ($M-2Cl^-—H^+$). HRMS found for $C_{19}H_{25}N_4O_2$: 341.1993, calculated for $C_{,19}H_{25}N_4O_2$: 341.1977.

The intermediate heptane 1,7-bistriflate was prepared from 1,7-heptanediol using a procedure similar to that described in M.F. Salomon, *J. Am. Chem. Soc.,* 1979, 101, 4290–4299.

Example 10

1,6-Hexylene-bis-N,N'-2-pyridinium aldoxime dichloride (FIG. **3**, **3***a*).

Using a procedure similar to that described in Example 9, except replacing the 1,7-heptanediol used therein, with 1,6-hexanediol, the title compound was prepared; yield: 85%; IR (KBr): 3383, 3095, 1626, 1578, 1491, 1439, 1327, 1161, 1024 and 775 cm^{-1}; ^{1}H-NMR (300 MHz, DMSO-d_6): d 12.47 (s, 2H), 8.36 (d, J=5.97 Hz, 2H), 7.94 (s, 2H), 7.71 (t, J=7.65 Hz, 2H), 7.53 (d, J=8.94 Hz, 2H), 7.25 (t, J=7.44 Hz, 2H), 3.93 (t, J=7.26 Hz, 4H), 1.04–0.84 (m, 4H) and 0.63–0.43(m, 4H); ^{13}C-NMR (75.46 MHz, DMSO-d_6): d 147.0, 146.0, 145.0, 141.2, 127.1, 125.7, 57.5, 29.9 and 24.6; MS (ESI) m/z: 327 ($M-2Cl^-—H^+$). HRMS found for $C_{18}H_{23}N_4O_2$: 327.1805, calculated for $C_{18}H_{23}N_4O_2$: 327.1824.

Example 11

1,8-Octylene-bis-N,N'-2-pyridiniumaldoxime dichloride (FIG. **3**, **3***c*).

Using a procedure similar to that described in Example 9, except replacing the 1,7-heptanediol used therein, with 1,8-octanediol, the title compound was prepared; Yield: 83%; IR (KBr): 3447, 3086, 1626, 1508, 1489, 1329, 1163 and 1028 cm^{-1}; ^{1}H-NMR (300 MHz, DMSO-d_6): d 12.26 (s, 2H), 8.10 (d, J=6.09 Hz, 2H), 7.60 (s, 2H), 7.39 (t, J=7.95 Hz, 2H), 7.18 (d, J=8.01 Hz, 2H), 6.93 (t, J=7.14 Hz, 2H), 3.63 (t, J=7.26 Hz, 4H), 0.68–0.48 (m, 4H) and 0.18–0 (m, 8H); ^{13}C-NMR (75.46 MHz, DMSO-d_6): d 146.8, 146.1, 145.2, 141.2, 127.3, 125.8, 57.7, 30.2, 28.0 and 25.1; MS (ESI) m/z: 355 ($M-2Cl^-—H^+$). HRMS found for $C_{20}H_{27}$, N_4O_2: 355.2150, calculated for $C_{20}H_{27}N_4O_2$: 355.2134.

Example 12

1,9-Nonylene-bis-N,N'-2-pyridiniumaldoxime dichloride (FIG. **3**, **1***d*).

Using a procedure similar to that described in Example 9, except replacing the 1,7-heptanediol used therein, with 1,9-nonanediol, the title compound was prepared; yield: 80%; IR (KBr): 3474, 3070, 1628, 1574, 1512, 1431, 1313, 1288, 1155, 1001 and 750 cm^{-1}; ^{1}H-NMR (300 MHz, DMSO-d_6): d 12.45 (s, 2H), 8.32 (d, J=6.11 Hz, 2H), 7.90 (s, 2H), 7.68 (t, J=7.88 Hz, 2H), 7.49 (d, J=7.83 Hz, 2H), 7.22 (t, J=6.65 Hz, 2H), 3.89 (t, J=6.96 Hz, 4H), 0.99–0.79 (m, 4H) and 0.49–0.29 (m, 10H); ^{13}C-NMR (75.46 MHz, DMSO-d_6): d 146.8, 146.1, 145.1, 141.2, 127.3, 125.8, 57.7, 30.3, 28.4, 28.2 and 25.2; MS (ESI) m/z: 369 ($M-2Cl^-—H^+$). HRMS found for $C_{21}H_{29}N_4O_2$: 369.2302, calculated for $C_{21}H_{29}N_4O_2$: 369.2302.

All publications, patents, and patent documents are incorporated by reference herein, as though individually incorporated by reference. The invention has been described with reference to various specific and preferred embodiments and techniques. However, it should be understood that many variations and modifications may be made while remaining within the spirit and scope of the invention.

What is claimed is:

1. A compound of formula I:

$$Ar^1—R^1—Ar^2 \quad (I)$$

wherein

Ar^1 and Ar^2 are each 2-hydroxyiminomethyl-1-pyridyl, attached to R^1 via a ring nitrogen; and

R^1 is an unbranched (C_7)-, (C_8)-, or (C_9)alkylene chain, optionally substituted with one, two, or three substituents selected from the group consisting of (C_1–C_3) alkoxy, hydroxy, and halo; or

R^1 is an unbranched (C_2–C_{10})alkylene chain comprising at least one divalent radicals selected from the group consisting of —OC(=O)—, —NHC(=O)—, —NHC(=O)C(=O)NH—, —OCH_2C=CCH_2OO —, 1,4-phenylene, 1,3-phenylene, 1,2-phenylene, 1,4-cyclohexadiyl, 1,3cyclohexadiyl, and 1,3-cyclopentadiyl; or a pharmaceutically acceptable salt thereof.

2. The compound of claim **1** wherein R^1 is an unbranched (C_7)- , (C_8)- , or (C_9)alkylene chain, optionally substituted with one, two, or three substituents selected from the group consisting of (C_1–C_3)alkoxy, hydroxy, and halo.

3. The compound of claim **1** wherein R^1 is an unbranched (C_2–C_{10})alkylene chain comprising within said chain a divalent radical selected from the group consisting of —OC(=O)—, —NHC(=O)—, —NHC(=O)C(=O)NH—, and —OCH_2C=CCH_2O—.

4. The compound of claim **1** wherein R^1 is an unbranched (C_2)- , (C_3)- , (C_4)- , or (C_5)-alkylene chain comprising within said chain a divalent radical selected from the group consisting of 1,4-phenylene, 1,3-phenylene, 1,2-phenylene, 1,4-cyclohexadiyl, 1,3cyclohexadiyl, and 1,3-cyclopentadiyl.

5. The compound of claim **1** wherein R^1 is 1,7-heptadiyl, 1,8-octadiyl, or 1,9-nonadiyl.

6. The compound of claim **1** wherein R^1 is an unbranched (C_7)alkylene chain, optionally substituted with one, two or three substituents selected from the group consisting of (C_1–C_3)alkoxy, hydroxy, oxo, and halo.

7. The compound of claim **1** wherein R^1 is an unbranched (C_6)- , (C_7)- , (C_8)- , (C_9)- , or (C_{10})-alkylene chain comprising within said chain a divalent radical —OC(=O)— or —NHC(=O)—.

8. The compound of claim **1** wherein R^1 is an unbranched (C_2)- , (C_3)- , (C_4)- , or (C_5)-alkylene chain comprising within said chain a divalent radical —NHC(=O)C(=O)NH— or —OCH_2C=CCH_2O—.

9. The compound of claim **1** wherein R^1 is 1,7-heptadiyl.

10. The compound of claim **1** which is 1,7-heptylene-bis-N,N'-2pyridiniumaldoxime dichloride.

11. The compound of claim **1**, wherein R^1 has a chain length of approximately 14–20 Å.

12. The compound of claim **1**, wherein R^1 has a chain length of approximately 16–18 Å.

13. A pharmaceutical composition comprising a compound of claim **1**; or a pharmaceutically acceptable salt thereof; and a pharmaceutically acceptable diluent or carrier.